

Notice of Allowability

Application No.

10/539,179

Examiner

Nikita Wells

Applicant(s)

FROSIE ET AL.

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to "Preliminary Amendment" received 16 June 2005.
2. ☒ The allowed claim(s) is/are 1-28.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 16 June 2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Nikita Wells
Primary Examiner
Art Unit: 2881

DETAILED ACTION

1. The Applicant amended all the claims 1-28 according to the "Preliminary Amendment" received June 16, 2005.

Allowable Subject Matter

2. Claims 1-28 are allowed.

3. The following is an examiner's statement of reasons for allowance:

With respect to the independent claims 1, 21, and 26, prior art fails to disclose or make obvious, in combination with other recited features of the claim limitations, an optical system for a charged particle multi-beam system, comprising: an electrostatic lens component for a plurality of charged particle beams having at least two electrostatic sub-lenses; and a magnetic lens component for a plurality of charged particle beams having at least two magnetic sub-lenses, wherein the sub-lenses share a common excitation coil; wherein the electrostatic and the magnetic lens component form a multi-lens for a plurality of charged particle beams having at least two sub-lenses; and wherein each sub-lens comprises an opening for a charged particle beam; and each sub-lens is adapted to focus a charged particle beam.

The novel aspect of the invention, not disclosed in prior art, is the use of electrostatic and magnetic lenses plus having at least two electrostatic sub-lenses and at least two magnetic sub-lenses (forming a multi lens) to focus a plurality of charged particle beams where each sub-lens focuses a charged particle beam.

The dependent claims 2-20, 22-25, and 27-28, are allowable by virtue of their dependence upon the independent claims 1, 21, and 26, respectively.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Both Muraki et al. (6,784,442 B2) and Lo et al. (6,750,455 B2) disclose optical system for a charged particle multi-beam system, comprising multiple magnetic lenses for focusing the plurality of charged particle beams.

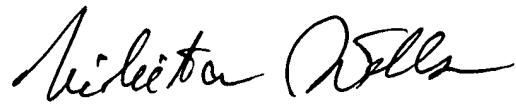
5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The central fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Nikita Wells". The signature is fluid and cursive, with the first name "Nikita" written in a larger, more prominent script than the last name "Wells".

Nikita Wells, Primary Examiner
Art Unit 2881
March 29, 2007